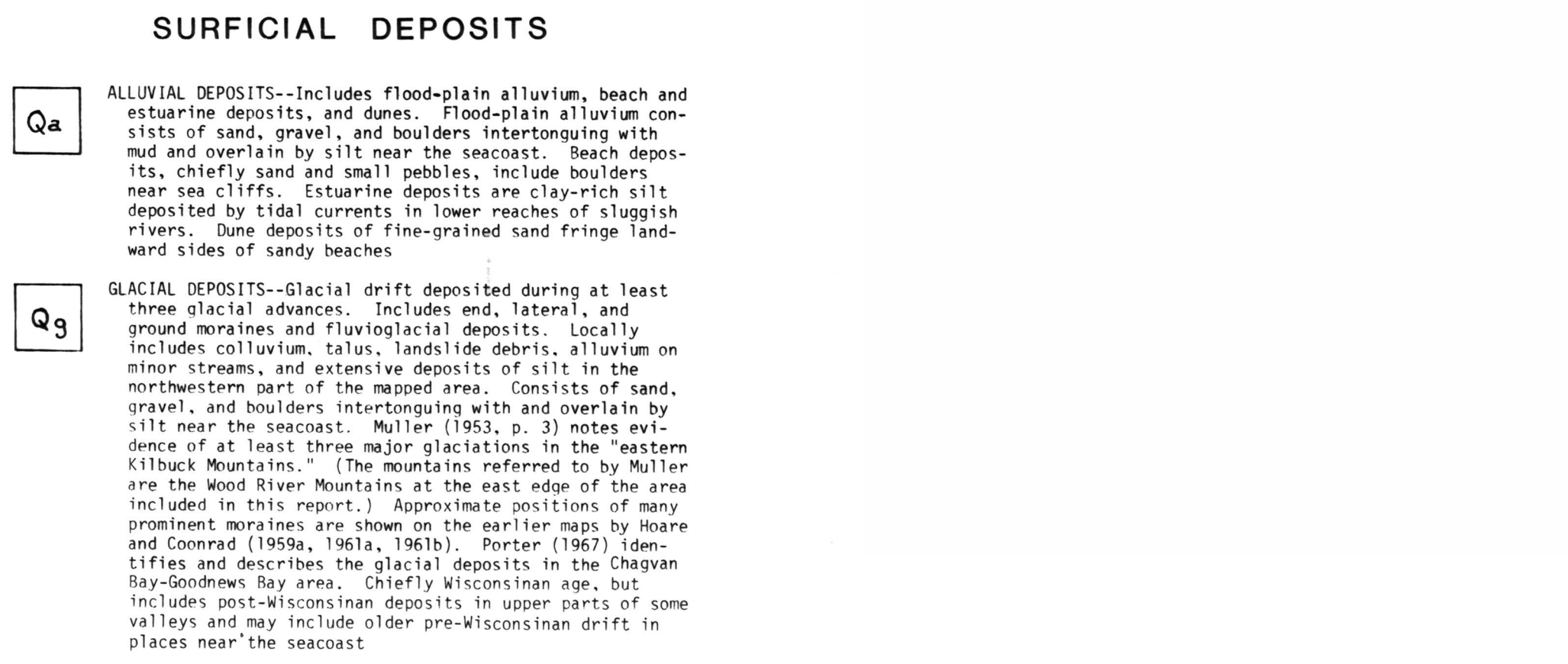
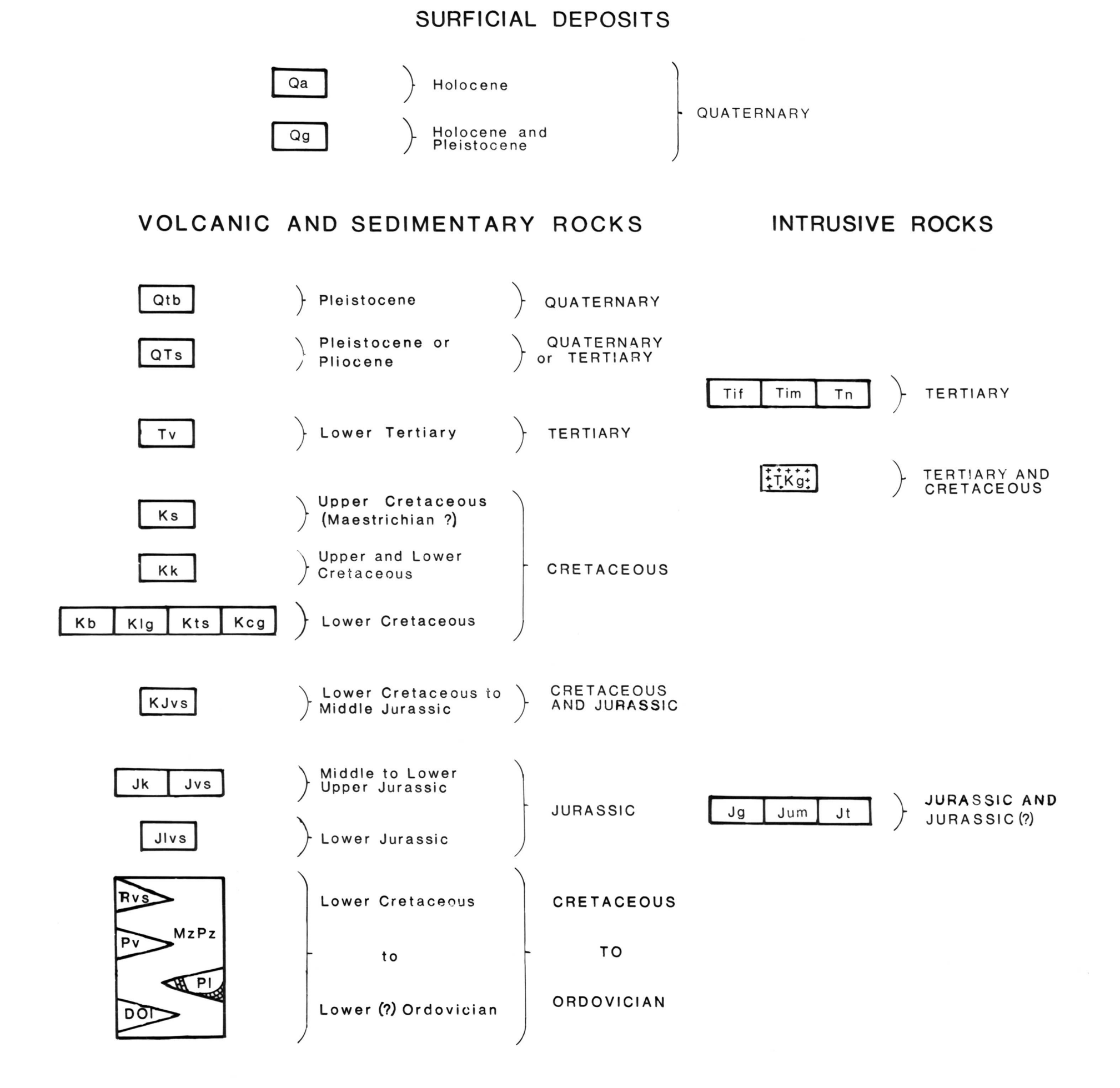


CORRELATION OF MAP UNITS

DESCRIPTION OF MAP UNITS



POTASSIUM-ARGON AGE DETERMINATIONS

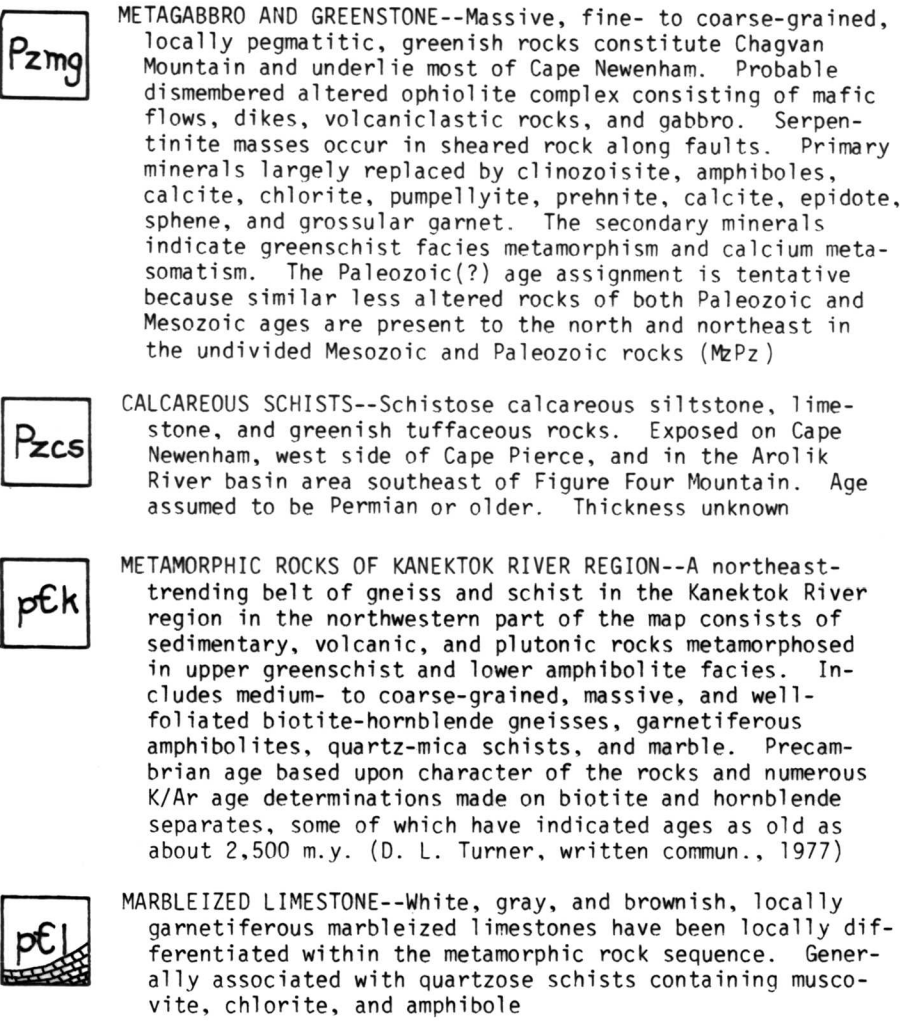
Table 1.--Potassium-argon ages, Goodnews and Hagemeister Island quadrangles region, southwestern Alaska

[Argon measurements were made by J. J. G. Smith and F. H. Wilson using standard isotope dilution techniques. Potassium measurements by J. H. Christie, Marcelyn Cramer, and F. H. Tillman were done by flame photometry using a lithium internal standard. Ages were calculated using year 1976 constants as follows: $\lambda_{K-Ar} = 0.587 \times 10^{-10} \text{ yr}^{-1}$, $\lambda_{K-Ca} = 8.781 \times 10^{-11} \text{ yr}^{-1}$, $\lambda_{K-40} = 4.963 \times 10^{-11} \text{ yr}^{-1}$; abundance ratio $^{40}\text{Ar}/^{39}\text{Ar} = 1.671 \times 10^{-4} \text{ mol/mol}$.]

Map symbol (field number)	Location (approximate latitude and longitude)	Age in million years plus or minus analytical uncertainty	Material dated	Rock type (unit and form)	Percent K ₂ O	⁴⁰ Ar/Ar (mole/gm X10 ⁻¹⁰)	⁴⁰ Ar/Ar (percent)	Dated by	Name	References
A (74AHR 77)	Goodnews B-3 59°17'51"N, 159°58'10"W	0.77±0.2	Whole rock	Basalt (Qtz-Flow)	1.097	1.23	44	J. G. Smith	Basalt of Togiak River Valley	
B (74AHR 26)	Hagemeister Island D-1 59°57'00"N, 160°00'35"W	13.0±0.5	Biotope	Biotope felsite (Tif-silt)	8.45	1.590	77	----do----	Nunavach Hills Wilson, 1977, #35	
C (6C4 1300)	Goodnews C-4 59°27'02"N, 160°08'30"W	60.7±1.8	Hornblende	Hornblende granite (Tn-intrusive-extrusive complex)	.871	.7744	67	F. H. Wilson	Nayorumun Wilson and Smith, 1976; Wilson, 1977, #2	
D (74ACD 140)	Nushagak Bay D-6 59°51'05"N, 159°58'40"W	64.6±2	Biotope	Biotope diabase (Tie-dike)	7.635	7.215	79	J. G. Smith		
E (6B1 3156)	Goodnews B-1 59°27'55"N, 159°10'35"W	69.5±1.2 63.4±1.9	Biotope Hornblende	Quartz diorite (TKg-stock)	6.82 .4115	6.953 .3823	88 39	F. H. Wilson	Zone Creek Wilson and Smith, 1976; Wilson, 1977, #11	
F (74B 57)	Goodnews C-1 59°27'00"N, 159°00'00"W	69.6±2.1	Biotope Hornblende	Granodiorite (TKg-stock)	8.765 .639	8.953 .5934	88 27	J. G. Smith	Akukuk Wilson and Smith, 1976; Wilson, 1977, #5	
G (601 3154)	Goodnews D-1 59°50'35"N, 159°10'55"W	62.5±1.9 65.2±2.0	Biotope Amphibole-pyroxene	Granodiorite (TKg-stock)	8.135 .5065	7.445 .4842	89 43	F. H. Wilson	Mt. Waskey Wilson and Smith, 1976; Wilson, 1977, #9	
H (6A5 1310)	Goodnews A-5 59°10'17"N, 160°38'55"W	67.4±2.0	Biotope	Tonalite	8.285	8.180	81	----do----	Sulatak Wilson and Smith, 1976; Wilson, 1977, #13	
I (605 1771)	Goodnews D-5 59°50'35"N, 160°48'51"W	68.7±3	Hornblende	Hornblende dacite (TKg-stock)	.6495	.6546	51	----do----	San Creek	
J (74AHR 118)	Goodnews C-2 59°39'37"N, 159°40'20"W	63.7±2.0 69.5±3	Biotope Hornblende	Quartz monzonite (TKg-stock)	9.275 .575	8.647 .5865	80 66	J. G. Smith	Togiak Lake Wilson and Smith, 1976; Wilson, 1977, #6	
K (73AHR 1)	Goodnews D-3 59°55'06"N, 159°54'55"W	71.1±2.1	Biotope	Quartz monzonite (TKg-stock)	9.32	9.713	92	----do----	Mt. Oratia Wilson and Smith, 1976; Wilson, 1977, #8	
L (6B7 1479A)	Goodnews B-7 59°20'45"N, 161°19'30"W	71.3±2.1	Biotope	Quartz diorite (TKg-stock)	9.045	9.459	87	F. H. Wilson	Wattamuse Wilson and Smith, 1976; Wilson, 1977, #12	
M (74AHR 51)	Nushagak Bay D-5 59°53'45"N, 159°28'52"W	71.9±2	Biotope	Pyroxene monzonite (TKg-stock)	9.405	9.925	92	J. G. Smith	Kulukuk Wilson, 1977, #23	
N (6C1 1381)	Goodnews C-1 59°20'35"N, 159°20'35"W	72.5±2.2	Biotope	Tonalite (TKg-stock)	7.88	8.389	80	F. H. Wilson	Sunday Creek Wilson and Smith, 1976; Wilson, 1977, #7	
O (6A7 1450)	Goodnews A-7 59°07'17"N, 161°31'25"W	162.4±4.9	Amphibole	Diorite (Jg-stock)	1.174	2.871	92	----do----	Crater Hill Wilson and Smith, 1976; Wilson, 1977, #28	
P (74AHR 112)	Hagemeister Island D-3 59°20'13"N, 160°58'08"W	159.3±3.5 (minimum age)	Hornblende	Gabbro (Jg-stock)	0.7705	1.847	72	----do----	Metogak Wilson, 1977, #31	
Q (74AHR 111)	Hagemeister Island D-4 59°20'45"N, 161°03'00"W	186.9±6	Hornblende	Gabbro (Jg-stock)	1.11	3.071	92	J. G. Smith	Downdraft Mountain Wilson, 1977, #32	
R (H06 2272A)	Hagemeister Island D-6 59°44'44"N, 161°46'20"W	176.4±5.3	Amphibole	Amphibolite (Jum-Red Mtn. contact zone)	.230	.6137	41	F. H. Wilson		
S (H06 1453E)	Hagemeister Island D-6 59°55'06"N, 161°46'28"W	186.9±5.6	Amphibole	-----do-----	.5205	1.475	79	----do----		



METAMORPHIC ROCKS



INTRUSIVE ROCKS

